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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/922,105

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Kia Silverbrook

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24011

7590

06/09/2004

SILVERBROOK RESEARCH PTY LTD  
393 DARLING STREET  
BALMAIN, 2041  
AUSTRALIA

EXAMINER

HUFFMAN, JULIAN D

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/922,105	SILVERBROOK, KIA	
	Examiner	Art Unit	
	Julian D. Huffman	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-9, 11, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 10 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 March 2004 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-7 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Akhavain et al. (U.S. 6,543,880 B1).

Akhavain et al. disclose an ink distribution assembly for a page width ink jet printhead (column 4, lines 48-50) in the form of at least one printhead chip (40) having sets of ink inlet openings (each nozzle hole has an opening 461, fig. 4) each set

receiving an ink of a particular color to be supplied to the printhead chip (column 6, lines 27-30), the assembly comprising:

an elongate carrier (30) having a printhead side that is engageable with the printhead and an opposed ink supply side (column 6, lines 22-24), and defining feed openings (334) to be in fluid communication with respective ink inlet openings of the printhead (column 6, lines 17-19), the ink supply side defining a number of discrete feed formations (fig. 6, element 363, column 6, lines 27-30), each feed formation being configured to receive ink of a particular color (column 6, lines 27-30) and to be in fluid communication with the, or each, inlet opening of a respective set, via a number of the feed openings (column 6, lines 19-24), and the printhead side defining at least one discrete feed formation (343), that extends through the carrier to be in fluid communication with the, or each, inlet opening of a further respective set, via a further number of the feed openings, from the ink supply side (column 6, lines 31-40);

a cover assembly (52) that is engageable with the carrier, the cover assembly being configured to enclose the feed formations (cover assembly covers openings 363), and the cover assembly being further configured so that the cover assembly and the ink supply side of the carrier define ink pathways that are in fluid communication with respective feed formations, one of the carrier and the cover assembly defining ink supply openings in fluid communication with respective ink pathways;

in which the carrier has a generally planar central portion (region where printheads 40 attach) and a pair of opposed sidewall portions (side walls protruding perpendicular from central portion and defining the thickness of the carrier) so that the

central portion and the sidewall portions define a region that engages the cover assembly (fig. 3);

in which the printhead side of the carrier defines a longitudinal recess, the printhead being received in the recess (fig. 6, printheads 40 are received in recesses);

in which the carrier defines a plurality of the feed openings so that each feed opening corresponds with a respective ink inlet opening of the printhead (column 6, lines 19-30);

in which each feed formation includes a plurality of ink feed channels each ink feed channel being in fluid communication with at least one respective feed opening, each ink pathway being in fluid communication with the ink feed channels of its corresponding feed formation (column 6, lines 19-30);

With regards to claim 2, the method in which the apparatus is manufactured does not further limit the apparatus.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akhavain et al. in view of Thiel et al. (5,646,658).

Akhavain et al. disclose everything claimed, as discussed above, with the exception of a plastic carrier.

Thiel et al. disclose a plastic carrier (column 6, lines 63-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the carrier of Akhavain et al. of plastic. The reason for doing such would have been to provide an inexpensive manufacturing method (column 6, lines 63-66).

**6.** Claim 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akhavain et al. in view of Su et al. (U.S. 5,208,610).

Akhavain et al. disclose the invention of claims 1, 2, 4-7 and 14 as discussed above. Additionally, Akhavain et al. disclose that plural feed openings for different colors of ink may be provided.

Akhavain et al. also disclose that the printhead side of the carrier defines a pair of ink supply formations in the form of ink supply channels, one on each side of a longitudinal recess (fig. 6, supply channels 343 are provided on each side of the longitudinal recess for holding the printhead, column 6, lines 31-40) and that the carrier defines a pair of ink supply passages (343), one in fluid communication with each ink supply channel (363), one of the ink pathways extending between one of the ink supply openings and the ink supply channels (column 6, lines 19-30, 323).

Akhavain et al. does not expressly disclose using ink of 3 different colors.

Su et al. teach an ink jet pen which is called a "color pen" which contains inks of subtractive primary colors, cyan, magenta and yellow (column 1, lines 10-13).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide cyan, magenta and yellow as the colors in the print assembly of Akhavain et al. The reason for doing such would have been to provide full color printing.

### ***Allowable Subject Matter***

7. Claims 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not disclose the longitudinally and laterally extending walls defining ink channels.

### ***Response to Arguments***

8. Applicant's argument Akhavian et al. do not disclose ink feed formations extending through the substrate has been considered and is respectfully deemed not persuasive. Fig. 6 shows the feed formations 363 extending through the layer 36. Applicant is not claiming that the feed formations extend entirely through the carrier.

Applicant's argument that Akhavian et al. do not disclose a cover assembly that encloses the ink feed formations on the printhead side has been considered and is deemed not persuasive. The printhead side feed formations (343) and ink supply side

feed formations (363) communicate with one another through the feed openings 334 and the cover encloses the feed formations by covering the feed formations 363.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571)272-2147. The examiner can generally be reached Monday through Friday from 9:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



JH

June 7, 2004



**Thinh Nguyen  
Primary Examiner  
Technology Center 2800**